C:\Program Files\Stnexp\Queries\10511660.str

```
7 8 17 20 21 22 32
ring nodes :
  1 2 3 4 5 6 10 11 12 13 24 25 26 27
ring/chain nodes :
   19
chain bonds :
  3-32 5-19 7-8 20-21 21-22
ring bonds :
   1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-13 11-12 12-13 24-25 24-27 25-26 26-27
exact/norm bonds :
  3-32 5-19 7-8 10-11 10-13 11-12 12-13 20-21 21-22 24-25 24-27 25-26 26-27
normalized bonds :
  1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
  containing 1 : 10 :
G1:[*1],[*2]
G2:C.S
```

G3:[*1],[*3],[*4]

Match level :

chain nodes :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 10:Atom 11:Atom 12:Atom 13:Atom 17:CLASS 18:Atom 19:CLASS 20:CLASS 21:CLASS 22:Atom 24:Atom 25:Atom 26:Atom 27:Atom 32:CLASS Generic attributes :

8:

Saturation : Saturated 22: Saturation : Unsaturated =>

Uploading C:\Program Files\Stnexp\Queries\10511660.str

10/511,660

3-32 5-19 7-8 10-11 10-13 11-12 12-13 20-21 21-22 24-25 24-27 25-26 26-27 normalized bonds : 1-2 1-6 2-3 3-4 4-5 5-6 isolated ring systems : containing 1 : 10 : G1:[*1],[*2] G2:C,S G3:[*1],[*3],[*4] Match level : 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 10:Atom 11:Atom 12:Atom 13:Atom 17:CLASS 18:Atom 19:CLASS 20:CLASS 21:CLASS 22:Atom 24:Atom 25:Atom 26:Atom 27:Atom 32:CLASS Generic attributes : Saturation : Saturated 22: Saturation : Unsaturated L1 STRUCTURE UPLOADED => d 11 L1 HAS NO ANSWERS STR * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT * Structure attributes must be viewed using STN Express query preparation. => s 11 sss sam SAMPLE SEARCH INITIATED 15:31:50 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 5091 TO ITERATE 39.3% PROCESSED 2000 ITERATIONS 2 ANSWERS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01 FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH **COMPLETE** PROJECTED ITERATIONS: 97542 TO 106098 2 TO PROJECTED ANSWERS: 236 2 SEA SSS SAM L1 => => s 11 sss ful FULL SEARCH INITIATED 15:32:16 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 103018 TO ITERATE

100.0% PROCESSED 103018 ITERATIONS SEARCH TIME: 00.00.01

231 ANSWERS

L3 231 SEA SSS FUL L1

=> => s 13 L4 13 L3

=> d 14 1-13 bib, ab, hitstr

- ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN T. 4
- 2008:191744 CAPLUS AN
- DN 148:262855
- Preparation of carbocyclic purine nucleoside analogs as antitumor agents TI and inhibitors of El activating enzymes
- IN Claiborne, Christopher F.; Critchley, Stephen; Langston, Steven P.; Olhava, Edward J.; Peluso, Stephane; Weatherhead, Gabriel S.; Vvskocil, Stepan; Visiers, Irache; Mizutani, Hiro; Cullis, Courtney
- PΑ Millennium Pharmaceuticals, Inc., USA SO PCT Int. Appl., 204pp.
- CODEN: PIXXD2
- DT Patent
- LA English

	FAN.	CNT	1																
		PA:	TENT :	NO.			KIN	D	DATE			APPL	ICAT		DATE				
	PI	WO	VO 2008019124					- /	2008	0214	-	WO 2	007-		806				
			W:				A1			AZ,									
										DE									
				GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,
				KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
				MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
				PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,
				TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW				
			RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
										MT,									
										GN,									
										NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,
	BY, KG, KZ,																		
	US 20080051404						A1			0228		US 2	007-		2	0070	806		
PRAI US 2006-836158P							P		2006	0808									

OS

MARPAT 148:262855 Nucleoside derivs. I, wherein A is 6-membered nitrogen-containing heteroaryl AB ring, optionally fused to a 5- or 6-membered aryl, heteroaryl, cyclo-aliphatic or heterocyclic ring; W is -CH-, -CHF-, -CF2-, -CH(R')-, -CF(R')-, -NH-, -N(R')-, -O-, -S-, or -NHC(O)-; R' is aliphatic, fluoro-aliph, alkylene chain that is attached to a ring position on ring A to form a 5-, 6-, or 7-membered fused ring, wherein the alkylene chain optionally is substituted with Cl. aliphatic, fluoro-aliphatic, O. -CN, or amide; X is CH2, CHF, CF2, NH, O; Y is O, S, substituted carbon; each R is independently H, F, aliphatic, fluoro-aliphatic; two R, taken together with the carbon atom to which they are attached, form a 3- to 6-membered carbocyclic ring; or one R, taken together with R1 and the intervening carbon atoms, forms a 3- to 6-membered spiro-cyclic ring; or two R together form O; R1 is H, or aliphatic; R and R1 taken together with the intervening carbon atoms form a 3- to 6-membered spiro-cyclic ring; R2 and R5 are independently is H , F , CN, N3, OH , alkoxy, substituted hydrazine, carbamate, amide, acyl, oxy-amide, ester, oxy-carboxylate,

fluoro-aliphatic, aliphatic; R3 is H , F , aliphatic, fluoro-aliphatic; R4 is

H, F, aliphatic, fluoro-aliphatic; R6 is H, aliphatic; n is 1-3; were prepared as inhibitors of El activating enzymes and useful for treating disorders. particularly cell proliferation disorders, including cancers, inflammatory and neurodegenerative disorders; and inflammation associated with infection and cachexia. Thus, carbocyclic nucleoside analog II was prepared and tested in vitro and in mice as inhibitor of El activating enzyme. The compds. are designed to be inhibitors of Nedd8-activating enzyme

(APPBP1-Uba3) (NAE), ubiquitin activating enzyme (UAE), and/or activating enzyme (Aos1-Uba2) (SAE).

1007123-74-1P

ΙT

CN

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of carbocyclic purine nucleoside analogs as antitumor agents and inhibitors of El activating enzymes)

RN 1007123-74-1 CAPLUS

Sulfamic acid, [(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-methyl-6-[(phenylmethyl)amino]-4-pyrimidinyl]amino]cyclopentyl]methyl ester (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Page 5

ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

- 2007:1468933 CAPLUS AN DN 148:100632 TI Preparation of pteridine derivatives as cathepsin inhibitors IN Heald, Robert Andrew; Morley, Andrew David PA Astrazeneca AB, Swed.; Astrazeneca UK Limited SO PCT Int. Appl., 34pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 DATE PATENT NO. KIND APPLICATION NO. DATE WO 2007148064 20071227 WO 2007-GB2269 20070620 PT A1 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM PRAI US 2006-816157P P 20060623 OS MARPAT 148:100632 AB The title compds. I [X = NR1 or S; Y = O or NR4; X1 = a bond, NH or N(alkyl); R = 4-7 membered saturated monocyclic or bicyclic ring (optionally containing one or more O, S(O)0-2 or N atoms), etc.; R1 = (CH2)nY(CH2)pR7 (wherein n, p = 0-2; Y = a bond, O, SO0-2 or R8; R7 = 3-7 membered saturated ring optionally containing one or more O, S or N atoms, or aryl, heteroaryl, etc.; R8 = H, alkyl, cycloalkyl); R2, R3 = H or alkyl; R4 = H, alkyl, cycloalkyl], useful for treating diseases associated with cysteine protease activity, were prepared and formulated. E.q., a multi-step synthesis of II, starting from benzyloxyacetaldehyde and ethanolamine, was given. The
- (no data given).
 IT 1000186-18-4P
 RL: PRPH (Propheti

T. 4

RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

compds. I are reversible inhibitors of cysteine protesses S, K, F, L and B. Of particular interest are diseases associated with Cathepsin K. Compds. I were screened in an assay for identification of cathepsin K inhibitors

(preparation of pteridine derivs, as cathepsin inhibitors)

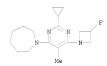
RN 1000186-18-4 CAPLUS

CN 2-Pyrimidinecarbonitrile, 4-[cyclopentyl[2-(2,4-dimethoxyphenyl)ethyl]amino]-6-[[(2,4-dimethoxyphenyl)methyl]amino]-5-nitro- (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/511,660

- L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2007:526089 CAPLUS
- DN 147:45200
- TI Dual M3 antagonists-PDE4 inhibitors. Part 2: Synthesis and SAR of 3-substituted azetidinyl derivatives
- AU Provins, Laurent; Christophe, Bernard; Danhaive, Pierre; Dulieu, Jacques; Gillard, Michel; Ouere, Luc; Stebbins, Karin
- CS R&D, Chemin du Foriest, UCB Pharma S.A., Braine L'Alleud, B-1420, Belg.
- SO Bioorganic & Medicinal Chemistry Letters (2007), 17(11), 3077-3080 CODEN: BMCLER: ISSN: 0960-894X
- PB Elsevier Ltd.
- DT Journal
- LA English
- OS CASREACT 147:45200
- AB Introduction of 3-substituted azetidinyl substituents onto the 4,6-diaminopyrimidine scaffold allowed the improvement of PDE4 inhibiting activities. Preliminary in vivo activity in pulmonary inflammation models is reported.
- IT 617719-14-9P
 - RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation): RACT (Reactant or reacent): USES (Uses)
 - (Dual M3 antagonists-PDE4 inhibitors. Part 2: Synthesis and SAR of 3-substituted azetidinyl derivs.)
- RN 617719-14-9 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropyl-6-(3-fluoro-1-azetidinyl)-5-methyl-4pyrimidinyl]hexahydro- (CA INDEX NAME)



- IT 617718-72-6P 617718-73-7P 617718-74-8P 617718-76-0P 617718-81-7P 617718-83-9P
 - 617718-85-1P 617718-87-3P 617718-89-5P
 - 617718-91-9P 790656-98-3P
 - RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 - (Dual M3 antagonists-PDE4 inhibitors. Part 2: Synthesis and SAR of 3-substituted azetidinyl derivs.)
- RN 617718-72-6 CAPLUS
- CN 1H-Azepine, 1-[6-(3-bromo-1-azetidiny1)-2-cyclopropy1-5-methy1-4-pvrimidinvl]hexahvdro- (CA INDEX NAME)

- RN 617718-73-7 CAPLUS
- CN 3-Azetidinecarbonitrile, 1-[2-cyclopropy1-6-(hexahydro-1H-azepin-1-y1)-5-methy1-4-pyrimidiny1]- (CA INDEX NAME)

- RN 617718-74-8 CAPLUS
- CN 1H-Azepine, 1-[6-(1-azetidiny1)-2-cyclopropy1-5-methy1-4-pyrimidiny1]hexahydro- (CA INDEX NAME)

- RN 617718-76-0 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropy1-5-methy1-6-(3-methy1-1-azetidiny1)-4pyrimidiny1]hexahydro- (CA INDEX NAME)

- RN 617718-81-7 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropyl-6-(3,3-dimethyl-1-azetidinyl)-5-methyl-4pyrimidinyl]hexahydro- (CA INDEX NAME)

- RN 617718-83-9 CAPLUS
- CN 3-Azetidinol, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4-pyrimidinyl]- (CA INDEX NAME)

- RN 617718-85-1 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropy1-6-(3-methyl-1-azetidinyl)-4pyrimidinyl]hexahydro- (CA INDEX NAME)



- RN 617718-87-3 CAPLUS
- CN 1H-Azepine, 1-[6-(1-azetidiny1)-2-cyclopropy1-4-pyrimidiny1]hexahydro-(CA INDEX NAME)

- RN 617718-89-5 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropyl-6-(3-fluoro-1-azetidinyl)-4pyrimidinyl]hexahydro- (CA INDEX NAME)

- RN 617718-91-9 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropyl-6-(3-methoxy-1-azetidinyl)-5-methyl-4pyrimidinyl]hexahydro- (CA INDEX NAME)

- RN 790656-98-3 CAPLUS
- CN 3-Azetidinone, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4-pyrimidinyl]- (CA INDEX NAME)

IT 617716-93-5, UCB 101333-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Dual M3 antagonists-PDE4 inhibitors. Part 2: Synthesis and SAR of 3-substituted azetidinyl derivs.)

RN 617716-93-5 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-(CA INDEX NAME)

IT 617718-84-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(Dual M3 antagonists-PDE4 inhibitors. Part 2: Synthesis and SAR of 3-substituted azetidinyl derivs.)

RN 617718-84-0 CAPLUS

CN 3-Azetidinol, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4pyrimidinyl]-, 3-methanesulfonate (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN T. 4
- 2007;405311 CAPLUS AN
- DN 146:402000
- TΙ Preparation of pyrimidine derivatives as MCH receptor antagonists
- Sekiquchi, Yoshiisa; Kanuma, Yukihiro; Omodera, Katsunori; Tran, Thuy-Ahn; IN Semple, Graeme; Kramer, Bryan A.
- PA Taisho Pharmaceutical Co., Ltd., Japan; Arena Pharmaceutical Inc.
- Jpn. Kokai Tokkyo Koho, 187pp. SO
- CODEN: JKXXAF
- DT Patent
- LA Japanese FAN.CNT 1
- PΤ

PATENT NO. KIND DATE APPLICATION NO. DATE JP 2007091649 20070412 JP 2005-284040 Α 20050929 PRAI JP 2005-284040 20050929

MARPAT 146:402000 OS AB

Title compds. Q-L-Y-R1 [I; 0 = 01 etc.; R1 = alkyl, alkenyl, alkynyl, etc.; R2 = halo, alkvl, halo-substituted alkvl, etc.; L = Q2, Q3, etc.; R3, R4 = H, alkvl; A, B = single bond, -CH2-, -(CH2)2-; Z1, Z2 = H, halo, alkyl, etc.; R2 and Z2 may combine to form a cycle, -R2-Z2- is -(CH2)n- or -(CH2)0-CH:CH-(CH2)p- (one -CH2- in -R2-Z2- may be replaced with C(0), O, S, etc.); n = 2-6; o, p = 0-4 such as o + p = 0-4; when L is Q2, etc., Y is -C(0)0-, -S(0)2-, -C(0)-, etc.; when L is Q3, etc., Y is -C(0)NR5, -C(S)NR5, -C(O)O-, etc.; R5 = H, alkyl], pharmaceutically acceptable salts, hydrates, or solvates thereof were prepared For example, reaction of N-(cis-4-aminocyclohexyl)-2,N',N'-trimethylpyrimidine-4,6-diamine, e.g., prepared from (cis-4-aminocyclohexyl)carbamic acid tert-Bu ester in 4 steps, with 4-fluorobenzoyl chloride followed by treatment with HCl afforded compound II hydrochloride [R = F; R' = H]. In melanin concentrating hormone

(MCH) antagonistic assays, the IC50 value of compound II hydrochloride [R = H; R' = C1] was 26 nM. Compds. I are claimed useful for the treatment of anxiety, depression, etc.

866643-12-1P, 3-Chloro-4-fluoro-N-[cis-4-[(2-methyl-6-(piperidin-1yl)pyrimidin-4-yl)amino]cyclohexyl]benzamide hydrochloride 866643-15-4P, 3-Chloro-4-fluoro-N-[cis-4-[(2-methyl-6-(pyrrolidin-1-v1)pyrimidin-4-v1)amino]cyclohexv1]benzamide hydrochloride 866644-74-8P, N-(cis-4-[[6-(Cyclopropylamino)-2-methylpyrimidin-4vllaminolcyclohexyl)-3,4,5-trifluorobenzamide hydrochloride 866644-76-0P, N-[cis-4-([6-[Benzyl(methyl)amino]-2-methylpyrimidin-4-y1]amino)cyclohexy1]-3,4,5-trifluorobenzamide hydrochloride 866648-27-3P, 3-Chloro-4-fluoro-N-cis-4-[(2-methyl-6-piperidin-1vlpvrimidin-4-vl)amino]cvclohexvlbenzamide 866648-34-2P, 3-Chloro-4-fluoro-N-cis-4-[(2-methyl-6-pyrrolidin-1-ylpyrimidin-4vl)aminolcvclohexvlbenzamide RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(drug candidate; preparation of pyrimidine derivs. as MCH receptor antagonists for treatment of anxiety and depression)

RN 866643-12-1 CAPLUS

(Uses)

Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-piperidinyl])-4pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HC1

- RN
- $866643-15-4 \quad CAPLUS \\ \mbox{Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-pyrrolidinyl)-4-methyl-6-(1-p$ CN pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HCl

- RN 866644-74-8 CAPLUS
- CN Benzamide, N-[cis-4-[[6-(cyclopropylamino)-2-methyl-4pyrimidinyl]amino]cyclohexyl]-3,4,5-trifluoro-, hydrochloride (1:1) (CA INDEX NAME)

● HC1

- RN 866644-76-0 CAPLUS
- CN Benzamide, 3,4,5-trifluoro-N-[cis-4-[[2-methyl-6-[methyl(phenylmethyl)amino]-4-pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HC1

- RN 866648-27-3 CAPLUS
- CN Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-piperidinyl)-4pyrimidinyl]amino]cyclohexyl]- (CA INDEX NAME)

RN 866648-34-2 CAPLUS
CN Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-pyrrolidinyl)-4-pyrimidinyl]nino]cyclohexyl]- (CA INDEX NAME)

- L4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:1356771 CAPLUS
- DN 146:100715
- TI Preparation of pyrimidine derivatives for the treatment of gaba b mediated nervous system disorders
- IN Floersheim, Philipp; Froestl, Wolfgang; Guery, Sebastien; Kaupmann, Klemens; Koller, Manuel
- PA Novartis AG, Switz.; Novartis Pharma GmbH
- SO PCT Int. Appl., 114pp.
- CODEN: PIXXD2
- DT Patent
- LA English

FAN.CNT 1																				
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PI	WO	2006	1364	42		A1 /20061228				1										
		W:	AE,	AG,	AL,	AM,	AT	AU,	AZ,	В₽,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
			CN,	CO,	CR,	CU,	CZ,	DEm	DKy	-ъм,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
			GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,		
			KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,		
			MW,	MX,	MZ, NA, NG		NG,	NI,	NO,	ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,		
		SC, SD, SE, US, UZ, VC,								SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,		
				VC,	VN,	ZA,	ZM,	ZW												
		RW:										ES,								
												RO,								
												MR,								
									SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,		
		KG, KZ, MD, R																		
						A1 20061228														
									CA 2006-2610742											
	EΡ								EP 2006-762168											
		R:										ES,						IE,		
										NL, PL, PT, RO, SE, S										
		IN 2007DN09085																		
											CN 2006-80020794									
		200716395 R 2008017382																		
											KR 2	007-729918				2	00712	221		
PKAI		2005-12844																		
	WO 2006-EP6083 W 20060623						0623													

OS MARPAT 146:100715 AB Title compds. I is

- AB Title compds. I in free base form or in acid addition salt form, in which RI is an alkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, etc.; RZ is H, halo, substituted amino etc.; R3 is a halo, haloalkyl, nitro (un)substituted aryl or (un)substituted heteroaryl; R4 is a H, halo, hydroxyl, alkynyl, (un)substituted amino etc.; and A is a bond, alkandiyl, alkendiyl or alkyndiyl group are prepared as medicaments for the treatment of certain nervous system disorders and to medicaments comprising them. Thus, II was prepared and showed an inhibition of 77% at 1 µM of GABA and 2.5 µM of II.
- IT 917895-56-8P
- RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 - (preparation of pyrimidine derivs. for the treatment of gaba b mediated nervous system disorders)
- RN 917895-56-8 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-5-nitro-2-(trifluoromethyl)-

(CA INDEX NAME)

IT 917895-80-8P 917895-81-9P 917895-82-0P

917895-83-1P 917895-84-2P 917895-85-3P

917896-53-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidine derivs. for the treatment of gaba b mediated nervous system disorders)

RN 917895-80-8 CAPLUS

CN 4,6-Pyrimidinediamine, 5-(4-butylphenyl)-N4,N6-dicyclopentyl-2-methyl-(CA INDEX NAME)

RN 917895-81-9 CAPLUS

CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-5-(4-ethylphenyl)-2-methyl-(CA INDEX NAME)

- RN 917895-82-0 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-2-methyl-5-(4-methylphenyl)-(CA INDEX NAME)

- RN 917895-83-1 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-5-(4-methoxyphenyl)-2-methyl-(CA INDEX NAME)

- RN 917895-84-2 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-2-methyl-5-(3-methylphenyl)-(CA INDEX NAME)

- RN 917895-85-3 CAPLUS
- CN 4,6-Pyrimidinediamine, 5-(3-butylphenyl)-N4,N6-dicyclopentyl-2-methyl-(CA INDEX NAME)

- RN 917896-53-8 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-2-ethyl-5-phenyl- (CA INDEX NAME)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/511,660

- ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN 1.4
- 2006:188875 CAPLUS AN
- DN 144:432767
- First dual M3 antagonists-PDE4 inhibitors: Synthesis and SAR of 4,6-diaminopyrimidine derivatives
- AU Provins, Laurent; Christophe, Bernard; Danhaive, Pierre; Dulieu, Jacques; Durieu, Veronique; Gillard, Michel; Lebon, Florence; Lengele, Sebastien; Ouere, Luc; van Keulen, BerendJan
- Global Chemistry, UCB, R&D, Chemin du Foriest, Braine-L'Alleud, B-1420, CS Bela.
- SO Bioorganic & Medicinal Chemistry Letter (2006), 16(7), 1834-1839 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier B.V.
- DТ Journal
- LA English
- റട
- CASREACT 144:432767
- AB Structure-activity studies around 4,6-diaminopyrimidine derivs. allowed the discovery of potent dual M3 antagonists and PDE4 inhibitors. Various chemical modulations around that scaffold led to the discovery of ucb-101333-3 (I) which is characterized by the most interesting profile on both targets.
- ΙT 617716-93-5P
 - RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 - (preparation of 4,6-diaminopyrimidine derivs. as dual M3 antagonists and PDE4 inhibitors)

common inventors

- RN 617716-93-5 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-(CA INDEX NAME)

617717-04-1P 617717-05-2P 617717-06-3P 617717-07-4P 617717-13-2P 617717-14-3P 617717-15-4P 617717-19-8P 617717-27-8P 617717-28-9P 617717-30-3P 617717-33-6P 617717-39-2P 617717-43-8P 617717-46-1P 617717-50-7P 617717-68-7P 617717-72-3P 617717-74-5P 617717-78-9P 617717-84-7P 617717-87-0P 617717-89-2P 617717-96-1P 617717-98-3P 617718-03-3P 617718-12-4P 617718-20-4P 617718-29-3P 617718-56-6P 617718-61-3P 617718-69-1P 617718-93-1P 762238-39-1P 765268-74-4P 773846-88-1P 792904-99-5P 884842-63-1P 884842-64-2P 884842-65-3P

617716-90-2P 617716-98-0P 617717-02-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)

(preparation of 4,6-diaminopyrimidine derivs. as dual M3 antagonists and PDE4 inhibitors)

RN 617716-90-2 CAPLUS

CN 4-Pyrimidinamine, 2-cyclobutyl-N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl- (CA INDEX NAME)



RN 617716-98-0 CAPLUS

CN 4-Pyrimidinamine, N-cyclobutyl-2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl- (CA INDEX NAME)

RN 617717-02-9 CAPLUS

CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-fluoro-6-(hexahydro-1H-azepin-1-yl)-(CA INDEX NAME)

RN 617717-04-1 CAPLUS

CN 4-Pyrimidinamine, 5-bromo-N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-(CA INDEX NAME)

- RN 617717-05-2 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)- (CA INDEX NAME)

- RN 617717-06-3 CAPLUS
- CN 4,5-Pyrimidinediamine, N4,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-(CA INDEX NAME)

- RN 617717-07-4 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-(1methylethyl)- (CA INDEX NAME)

- RN 617717-13-2 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropy1-6-(hexahydro-1H-azepin-1-y1)-5-methy1-2-

[(1R,2R)-2-methylcyclopropyl]-, rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

- RN 617717-14-3 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.

- RN 617717-15-4 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-2-(cyclopropylmethyl)-6-(hexahydro-1H-azepin-1-yl)-5-methyl- (CA INDEX NAME)

- RN 617717-19-8 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1(2H)-azocinyl)-5-methyl-

(CA INDEX NAME)

- RN 617717-27-8 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-[4-(trifluoromethyl)-1-piperidinyl]- (CA INDEX NAME)

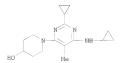
- RN 617717-28-9 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4,4-difluoro-1-piperidinyl)-5-methyl- (CA INDEX NAME)

- RN 617717-30-3 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4,4-dimethyl-1-piperidinyl)-5methyl- (CA INDEX NAME)

RN 61717-33-6 CAPLUS
CN 4-Pyrimidinamine, N,2-dicyclopropy1-5-methyl-6-[4-(phenylmethyl)-1piperidinyl]- (CA INDEX NAME)

- RN 617717-39-2 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropy1-6-(4-ethy1-1-piperidiny1)-5-methyl-(CA INDEX NAME)

- RN 617717-43-8 CAPLUS
- CN 4-Piperidinol, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4pyrimidinyl]- (CA INDEX NAME)



- RN 617717-46-1 CAPLUS
- CN 4-Piperidinemethanol, 1-[2-cyclopropy1-6-(cyclopropylamino)-5-methy1-4pyrimidiny1]- (CA INDEX NAME)

- RN 617717-50-7 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-(4-methyl-1-piperidinyl)-(CA INDEX NAME)

- RN 617717-68-7 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-5-methyl-N6-[2-(2-thienyl)ethyl]-(CA INDEX NAME)

- RN 617717-72-3 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-5-methyl-N6-(2-thienylmethyl)-(CA INDEX NAME)

- RN 617717-74-5 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(3,6-dihydro-1(2H)-pyridinyl)-5methyl- (CA INDEX NAME)

- RN 617717-78-9 CAPLUS
- CN 4-Pyrimidinamine, 6-(3-azabicyclo[3.2.1]oct-3-y1)-N,2-dicyclopropy1-5-methy1- (CA INDEX NAME)

- RN 617717-84-7 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-ethyl-6-(4-thiomorpholinyl)- (CA INDEX NAME)

RN 617717-87-0 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-fluoro-6-(4-thiomorpholinyl)- (CA INDEX NAME)

- RN 617717-89-2 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methoxy-6-(4-thiomorpholinyl)- (CA INDEX NAME)

- RN 617717-96-1 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,2-dicyclopropy1-5-methyl-N6-(phenylmethyl) (CA INDEX NAME)

- RN 617717-98-3 CAPLUS
- CN 4,6-Pyrimidinediamine, N6,2-dicyclopropyl-N4,5-dimethyl-N4-(phenylmethyl)-(CA INDEX NAME)

- RN 617718-03-3 CAPLUS
- CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-N6-[(2,6-difluorophenyl)methyl]-5-methyl- (CA INDEX NAME)

- RN 617718-12-4 CAPLUS
- CN 4,6-Pyrimidinediamine, N4-cycloheptyl-N6,2-dicyclopropyl-5-methyl- (CA INDEX NAME)

- RN 617718-20-4 CAPLUS
- CN 4,6-Pyrimidinediamine, N4-cyclohexyl-N6,2-dicyclopropyl-5-methyl- (CA INDEX NAME)

- RN 617718-29-3 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(3,4-dihydro-2(1H)-isoquinolinyl)-5methyl- (CA INDEX NAME)

- RN 617718-56-6 CAPLUS
- CN 4-Pyrimidinamine, 2-cyclopropyl-6-(hexahydro-1H-azepin-1-y1)-5-methyl-N-[(1R,2R)-2-methylcyclopropyl]-, rel- (CA INDEX NAME)

- RN 617718-61-3 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-(1-piperidinyl)- (CA INDEX NAME)

- RN 617718-69-1 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-(1-pyrrolidinyl)- (CA INDEX NAME)

- RN 617718-93-1 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-nitro-(CA INDEX NAME)

- RN 762238-39-1 CAPLUS
- CN 4-Piperidinone, 1-[2-cyclopropy1-6-(cyclopropylamino)-5-methy1-4pyrimidiny1]- (CA INDEX NAME)

- RN 765268-74-4 CAPLUS
- CN 4-Pyrimidinamine, 2-cyclopentyl-N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl- (CA INDEX NAME)



- RN 773846-88-1 CAPLUS
- CN 4-Pyrimidinamine, 6-(8-azaspiro[4.5]dec-8-yl)-N,2-dicyclopropyl-5-methyl-(CA INDEX NAME)

- RN 792904-99-5 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-(4-thiomorpholinyl)- (CA INDEX NAME)

- RN 884842-63-1 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-(4-methylene-1-piperidinyl)-(CA INDEX NAME)

- RN 884842-64-2 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropy1-6-(hexahydro-1H-azepin-1-y1)-5-methy1-2-(phenylmethy1)- (CA INDEX NAME)

- RN 884842-65-3 CAPLUS
- CN 4-Pyrimiddinamine, 2-cyclopropyl-6-(hexahydro-1H-azepin-1-y1)-5-methyl-N-(1-methylcyclopropyl)- (CA INDEX NAME)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2005:1103757 CAPLUS
- DN 143:387051
- ${\tt TI}$ Preparation of pyrimidine derivatives as MCH antagonists for treatment of CNS disorders
- IN Sekiguchi, Yoshinori; Kanuma, Kosuke; Omodera, Katsunori; Tran, Thuy-Anh; Semple, Graeme; Kramer, Bryan A.
- PA Taisho Pharmaceutical Co., Ltd., Japan; Arena Pharmaceuticals, Inc SO PCT Int. Appl., 281 pp.
- CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

AB

FAN.CNT 1 PATENT NO.						KIND DATE				APPL	ICAT	ION	D.							
PI							A2 20051013 A3 20060119					005-	JP65	20050329						
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			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,		
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,		
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,		
												US,							ZW	
		RW:										SL,								
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								BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,		
						TD,														
									AU 2005-227997											
		CA 2558915				A1					CA 2005-2558915									
	EP	EP 1730122									2005-721721 L. ES. FI. FR.									
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	CN 1976905 BR 2005009299 JP 2007530445 IN 2006KN02816 MX 2006PA11198					A	20070606 20070918				CN 2005-80017519 BR 2005-9299									
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					A					IN 2006-KN2816 MX 2006-PA11198										
KR 2006PA11198 KR 2007013279 NO 2006004950				A	20061211 20070130															
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		2005						2005												
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MARRAT 143:387051 Title compds. I, and II [wherein Rl = (un)substituted alk(en/yn)yl, cycloalk(en)yl, carbocyclyl, carbocyclic aryl, heterocyclyl, R2 = halo, (un)substituted alkyl, heterocyclyl, etc.; L = cyclohexylene-1,4-diamino, cyclohexylene-1-amino-4-aminomethylene, etc.; 21-24 = independently H, halo, (un)substituted alkyl, etc.; Y = CONH and derivs., CO, SO, SO2, etc.; and pharmaceutically acceptable salts, hydrates, or solvates] were prepared as antagonists of melanin concentrating hormone (MCH), an endogenous ligand of G-protein coupled receptors (GPCRs). I were assayed using high throughput functional screening to detect intracellular Ca2+ concns. for accessing GPCR activation. For example, III-HCl was prepared by acylation N-(cis-4-aminocyclohexyl)-2-methyl-N',N'-dimethylpyrimidine-4,6-diamine (preparation given) with 4-fluorobenzoyl chloride, and acidulation of the free base (not isolated). The latter demonstrated MCH antagonist

activity with an IC50 value of 101 nM. Thus, pharmaceutical compns. comprising I are useful for the prophylaxis or treatment of improving memory function, sleeping and arousal, anxiety, depression, mood disorders, seizure, obesity, diabetes, appetite and eating disorders, cardiovascular disease, hypertension, dyslipidemia, myocardial infarction, binge eating disorders including bulimia, anorexia, mental disorders including manic depression, schizophrenia, delirium, dementia, stress, cognitive disorders, attention deficit disorder, substance abuse disorders, and dyskinesias including Parkinson's disease, epilepsy, and addiction (no data).

IT 866643-12-IP, 3-Chloro-4-fluoro-N-[cis-4-[12-methy]-6-(piperidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl] benzamide monohydrochloride 866643-15-4P, 3-Chloro-4-fluoro-N-[cis-4-[[2-methy]-6-(pyrrolidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl]benzamide monohydrochloride 866644-74-8P, N-[cis-4-[[6-(cyclopropylamino]-2-methylpyrimidin-4-yl]amino]cyclohexyl]-3,4,5-trifluorobenzamide monohydrochloride 866644-76-0P, N-[cis-4-[[6-[Benzyl[methyl]amino]-2-methylpyrimidin-4-yl]amino]cyclohexyl]-3,4,5-trifluorobenzamide monohydrochloride 866648-8-27-3P, 3-Chloro-4-fluoro-N-[cis-4-[[2-methy]-6-(pyrolidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl]benzamide 866648-34-2P, 3-Chloro-4-fluoro-N-[cis-4-[[2-methy]-6-(pyrolidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl]benzamide 866648-34-2P, 3-Chloro-4-fluoro-N-[cis-4-[[2-methy]-6-(pyrolidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl]benzamide 8Chloro-N-[cis-4-[[2-methy]-6-(pyrolidin-1-yl)pyrimidin-4-yl]amino]cyclohexyl]benzamide 8Chloro-N-[cis-4-[[2-methy]-6-(pyrol

(Uses)
(drug candidate; preparation of pyrimidines as MCH antagonists for treatment
of CNS disorders)

RN 866643-12-1 CAPLUS

CN Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-piperidinyl)-4-pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 866643-15-4 CAPLUS

CN Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-pyrrolidinyl)-4-pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

- RN 866644-74-8 CAPLUS
- CN Benzamide, N-[cis-4-[[6-(cyclopropylamino)-2-methyl-4pyrimidinyl]amino]cyclohexyl]-3, 4, 5-trifluoro-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HCl

- RN 866644-76-0 CAPLUS
- CN Benzamide, 3,4,5-trifluoro-N-[cis-4-[[2-methyl-6-[methyl[phenylmethyl]amino]-4-pyrimidinyl]amino]cyclohexyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

- $866648-27-3 \quad CAPLUS \\ \mbox{Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-piperidinyl)-4-me$ CN pyrimidinyl]amino]cyclohexyl]- (CA INDEX NAME)

Relative stereochemistry.

- RN 866648-34-2 CAPLUS
- Benzamide, 3-chloro-4-fluoro-N-[cis-4-[[2-methyl-6-(1-pyrrolidinyl)-4-CN pyrimidinyl]amino]cyclohexyl]- (CA INDEX NAME)

```
ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
T. 4
AN
    2003:837052 CAPLUS
DN
    139:337980
    Preparation of aminopyrimidines with muscarinic M3 antagonist and PDE IV
    inhibiting activity
    Provins, Laurent; Van Keulen, Berend Jan; Surtees, John; Talaga, Patrice;
    Christophe, Bernard
PA
    UCB, S.A., Belg.
SO
    PCT Int. Appl., 71 pp.
                                                 Applicant's
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                          APPLICATION NO.
                                                                 DATE
                                           _____
PΙ
    WO 2003087064
                         A1
                               20031023
                                         WO 2003-EP3299
                                                                 20030329
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2003222786 A1 20031027 AU 2003-222786 20030329

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TT, TT,

EP 1499598 A1 20050126 EP 2003-718717 20030329 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK US 20060074068 A1 20060406 CD 2005-511660 20051005

US 20060074068 A1 20060406 C
PRAI EP 2002-8706 A 20020418
WO 2003-EP3299 W 20030329

OS MARPAT 139:337980

AB Aminopyrimidines I [R = NHR2, (un)substituted azetidinyl; Rl = alkyl, cycloalkyl; R2 = cycloalkyl; R3 = H, alkyl, halogen, OH, alkoxy, amino; R2R3 = alkylene; R4 = H, alkyl; R5 = cycloalkyl; aralkyl, heterocyclylalkyl; NR4R5 = heterocyclic], combining affinity and antagonism against the human M3 muscarinic receptor with activity as selective phosphodiesterase IV (PDE IV) inhibitors, were prepared Thus, the amine II was prepared from 6-chloro-N,2-dicyclopropyl-5-nitropyrimidin-4-amine by reaction with hexamethylenimine and reduction of the nitro group.

IT 617718-83-9P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of aminopyrimidines with muscarinic M3 antagonist and PDE IV inhibiting activity)

RN 617718-83-9 CAPLUS

CN 3-Azetidinol, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4pyrimidinyl]- (CA INDEX NAME)

ΤТ 617716-91-3P 617716-94-6P 617716-96-8P 617717-01-8P 617717-03-0P 617717-04-1P 617717-05-2P 617717-06-3P 617717-08-5P 617717-10-9P 617717-12-1P 617717-13-2P 617717-20-1P 617717-27-8P 617717-29-0P 617717-30-3P 617717-31-4P 617717-39-2P 617717-40-5P 617717-49-4P 617717-51-8P 617717-57-4P 617717-65-4P 617717-75-6P 617717-79-0P 617717-85-8P 617717-86-9P 617718-04-4P 617718-25-9P 617718-27-1P 617718-39-5P 617718-62-4P 617718-64-6P 617718-66-8P 617718-69-1P 617718-75-9P 617718-76-0P 617718-77-1P 617718-79-3P 617718-86-2P 617718-87-3P 617718-89-5P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminopyrimidines with muscarinic M3 antagonist and PDE IV inhibiting activity)

RN 617716-91-3 CAPLUS

CN 4-Pyrimidinamine, 2-cyclobutyl-N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM

CRN 617716-90-2 CMF C18 H28 N4



CM 2

CRN 110-16-7 CMF C4 H4 O4 Double bond geometry as shown.

CM :

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617716-96-8 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-, (2E)-2-butenedioate (2:3) (CA INDEX NAME)

CM 1

CRN 617716-93-5 CMF C17 H26 N4

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

617717-01-8 CAPLUS CN

4-Pyrimidinamine, 5-chloro-N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-00-7 CMF C16 H23 C1 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

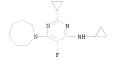
Page 43

RN 617717-03-0 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-fluoro-6-(hexahydro-1H-azepin-1-yl)-, (22)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-02-9 CMF C16 H23 F N4



CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-04-1 CAPLUS

CN 4-Pyrimidinamine, 5-bromo-N, 2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-(CA INDEX NAME)

RN 617717-05-2 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)- (CA INDEX NAME)

RN 617717-06-3 CAPLUS

CN

4,5-Pyrimidinediamine, N4,2-dicyclopropy1-6-(hexahydro-1H-azepin-1-y1)-(CA INDEX NAME)

RN 617717-08-5 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-(1-methylethyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-07-4 CMF C17 H28 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

RN 617717-10-9 CAPLUS

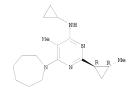
CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-[(1R, 2R)-2-methylcyclopropyl]-, rel-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-09-6

CMF C18 H28 N4

Relative stereochemistry.



CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-12-1 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-[(1R,2S)-2-methylcyclopropyl]-, rel-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-11-0 CMF C18 H28 N4

CHE CIO HZO NA

Relative stereochemistry.

CM 2

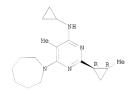
CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-13-2 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



RN 617717-20-1 CAPLUS CN 4-Pvrimidinamine, N

4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1(2H)-azocinyl)-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-19-8

CMF C18 H28 N4

CM

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-27-8 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-[4-(trifluoromethyl)-1-piperidinyl]- (CA INDEX NAME)

RN 617717-29-0 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4,4-difluoro-1-piperidinyl)-5methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-28-9 CMF C16 H22 F2 N4

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-30-3 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4,4-dimethyl-1-piperidinyl)-5methyl- (CA INDEX NAME)

RN 617717-31-4 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4,4-dimethyl-1-piperidinyl)-5-methyl-, hydrochloride (1:1) (CA INDEX NAME)

● HC1

- RN 617717-39-2 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4-ethyl-1-piperidinyl)-5-methyl-(CA INDEX NAME)

- RN 617717-40-5 CAPLUS
- CN 4-Pyrimidinamine, N, 2-dicyclopropyl-6-(4-ethyl-1-piperidinyl)-5-methyl-, hydrochloride (1:1) (CA INDEX NAME)

■ HC1

- RN 617717-49-4 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-ethyl-6-(4-methyl-1-piperidinyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)
 - CM 1
 - CRN 617717-48-3

CMF C18 H28 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

617717-51-8 CAPLUS RN CN

4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-(4-methyl-1-piperidinyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-50-7 CMF C17 H26 N4

CM

CRN 110-16-7 CMF C4 H4 O4

617717-57-4 CAPLUS

4-Pyrimidinamine, N-cyclopropy1-5-methy1-2-[(1R,2S)-2-methylcyclopropy1]-6-CN (4-methyl-1-piperidinyl)-, rel-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

1 CRN 617717-56-3 CMF C18 H28 N4

Relative stereochemistry.

CM

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-65-4 CAPLUS

4-Pyrimidinamine, N-cyclopropy1-2-[(1R,2R)-2-methylcyclopropy1]-6-(4-CN methylene-1-piperidinyl)-, hydrochloride (1:1), rel- (CA INDEX NAME)

● HCl

RN 617717-75-6 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(3,6-dihydro-1(2H)-pyridinyl)-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM

CRN 617717-74-5

CMF C16 H22 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-79-0 CAPLUS

CN 4-Pyrimidinamine, 6-(3-azabicyclo[3.2.1]oct-3-yl)-N,2-dicyclopropyl-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CRN 617717-78-9

CMF C18 H26 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-85-8 CAPLUS CN 4-Pvrimidinamine, N

4-Pyrimidinamine, N,2-dicyclopropyl-5-ethyl-6-(4-thiomorpholinyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-84-7 CMF C16 H24 N4 S

CM 2

CRN 110-16-7 CMF C4 H4 O4 Double bond geometry as shown.

617717-86-9 CAPLUS RN

4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-(4-thiomorpholinyl)-, CN hydrochloride (1:1) (CA INDEX NAME)

● HCl

617718-04-4 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-N'-[(2,6-difluorophenyl)methyl]-5methyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-03-3 CMF C18 H20 F2 N4

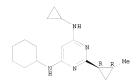
CM

CRN 110-16-7 CMF C4 H4 O4

RN 617718-25-9 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclohexyl-N6-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



RN 617718-27-1 CAPLUS CN 4,6-Pvrimidinediami:

4,6-Pyrimidinediamine, N,2-dicyclopropyl-5-methyl-N'-(4-methylcyclohexyl)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM :

CRN 617718-26-0

CMF C18 H28 N4

CM 2

CRN 110-16-7

CMF C4 H4 O4

617718-39-5 CAPLUS

CN 4-Pyrimidinamine, 2-cyclopentyl-N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

617718-62-4 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-(1-piperidinyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617718-61-3 CMF C16 H24 N4

CM

CRN 110-16-7

CMF C4 H4 O4

RN 617718-64-6 CAPLUS

CN 4-Pyrimidinamine, 6-(3-azabicyclo[3.2.2]non-3-y1)-N,2-dicyclopropy1-5-methy1-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM

CRN 617718-63-5

CMF C19 H28 N4

CM :

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-66-8 CAPLUS
CN 4-Pyrimidinamine, N, 2-dicyclopropyl-5-methyl-6-(2-methyl-1-piperidinyl)-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617718-65-7

CMF C17 H26 N4

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-69-1 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-(1-pyrrolidinyl)- (CA INDEX NAME)

RN 617718-75-9 CAPLUS

1H-Azepine, 1-[6-(1-azetidiny1)-2-cyclopropy1-5-methy1-4pyrimidiny1]hexahydro-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM

CN

CRN 617718-74-8

CMF C17 H26 N4

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-76-0 CAPLUS

CN 1H-Azepine, 1-[2-cyclopropyl-5-methyl-6-(3-methyl-1-azetidinyl)-4pyrimidinyl]hexahydro- (CA INDEX NAME)

RN 617718-77-1 CAPLUS

1

CN 1H-Azepine, 1-[2-cyclopropy1-5-methy1-6-(3-methy1-1-azetidiny1)-4pyrimidiny1]hexahydro-, (2E)-2-butenedioate (2:3) (CA INDEX NAME)

CM

CRN 617718-76-0

CMF C18 H28 N4

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

CN

617718-79-3 CAPLUS 1H-Azepine, 1-[2-cyclopropyl-5-methyl-6-(3-methyl-1-azetidinyl)-4pyrimidinyl]hexahydro-, (2E)-2-butenedioate (1:2) (CA INDEX NAME)

CM

CRN 617718-76-0

CMF C18 H28 N4

CM

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-86-2 CAPLUS

CN 1H-Azepine, 1-[2-cyclopropy1-6-(3-methy1-1-azetidiny1)-4-

pyrimidinyl]hexahydro-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617718-85-1 CMF C17 H26 N4

CM

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-87-3 CAPLUS

1H-Azepine, 1-[6-(1-azetidiny1)-2-cyclopropy1-4-pyrimidiny1]hexahydro-CN (CA INDEX NAME)

RN

 $\begin{array}{lll} \texttt{617718-89-5} & \texttt{CAPLUS} \\ \texttt{1H-Azepine, 1-[2-cyclopropyl-6-(3-fluoro-1-azetidinyl)-4-} \end{array}$ CN pyrimidinyl]hexahydro- (CA INDEX NAME)

- IT 617718-31-7P 617718-93-1P 617719-14-9P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminopyrimidines with muscarinic M3 antagonist and PDE IV inhibiting activity)

- RN 617718-31-7 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(1,4-dioxa-8-azaspiro[4.5]dec-8-yl)-5-methyl- (CA INDEX NAME)

- RN 617718-93-1 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-nitro-(CA INDEX NAME)

- RN 617719-14-9 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropy1-6-(3-fluoro-1-azetidiny1)-5-methy1-4pyrimidiny1]hexahydro- (CA INDEX NAME)

RN

CN

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617717-14-3P 617717-16-5P 617717-17-6P
617717-18-7P 617717-21-2P 617717-22-3P
617717-24-5P 617717-26-7P 617717-32-5P
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617718-60-2P 617718-67-9P 617718-68-0P
617718-71-5P 617718-72-6P 617718-73-7P
617718-81-7P 617718-84-0P 617718-88-4P
617718-90-8P 617718-92-0P
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617716-87-7P 617716-88-8P 617716-99-1P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminopyrimidines with muscarinic M3 antagonist and PDE IV inhibiting activity) 617716-87-7 CAPLUS

4-Pyrimidinamine, N,2-dicyclopropyl-6-(3-thiazolidinyl)-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 617716-88-8 CAPLUS

4-Pyrimidinamine, N-cyclopropy1-2-(1-methylethyl)-6-(3-thiazolidinyl)-CN (CA INDEX NAME)

617716-99-1 CAPLUS RN

CN 4-Pyrimidinamine, N-cyclobuty1-2-cyclopropy1-6-(hexahydro-1H-azepin-1-y1)-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617716-98-0 CMF C18 H28 N4

CM

CRN 110-16-7

CMF C4 H4 O4

RN 617717-14-3 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.

RN 617717-16-5 CAPLUS

4-Pyrimidinamine, N-cyclopropyl-2-(cyclopropylmethyl)-6-(hexahydro-1H-azepin-1-yl)-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CN

CRN 617717-15-4 CMF C18 H28 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

RN 617717-17-6 CAPLUS

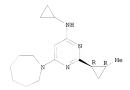
CN 4-Pyrimidinamine, 5-chloro-N-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-2-[(1R,2R)-2-methylcyclopropyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 617717-18-7 CAPLUS

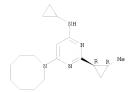
CN 4-Pyrimidinamine, N-cyclopropy1-6-(hexahydro-1H-azepin-1-y1)-2-[(1R,2R)-2-methylcyclopropy1]-, rel- (CA INDEX NAME)

Relative stereochemistry.



RN 617717-21-2 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(hexahydro-1(2H)-azocinyl)-2-[(1R,2R)-2-methylcyclopropyl]-, rel- (CA INDEX NAME)



RN 617717-22-3 CAPLUS

CN 4-Pyrimiddinamine, N,2-dicyclopropyl-6-(3,5-dimethyl-1-piperidinyl)-5methyl- (CA INDEX NAME)

RN 617717-24-5 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-[4-(2-methoxyphenyl)-1-piperidinyl]-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-23-4 CMF C23 H30 N4 O

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

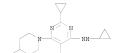
HO₂C Z CO₂H

RN 617717-26-7 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-[4-(diphenylmethyl)-1-piperidinyl]-5-methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM I

CRN 617717-25-6 CMF C29 H34 N4



Ph₂CH

CM

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

HO₂C Z

RN 617717-32-5 CAPLUS

CN 4-Piperidinecarboxamide, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4-pyrimidinyl]- (CA INDEX NAME)

RN 617717-34-7 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-[4-(phenylmethyl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617717-33-6 CMF C23 H30 N4

CM

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-35-8 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4-pyrimidinyl]- (CA INDEX NAME)

617717-36-9 CAPLUS RN

4-Piperidinecarbonitrile, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4-CN pyrimidinyl]-4-phenyl- (CA INDEX NAME)

617717-38-1 CAPLUS RN

CN 4-Piperidinecarboxylic acid, 1-[2-cyclopropyl-6-(cyclopropylamino)-5methyl-4-pyrimidinyl]-, ethyl ester, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-37-0

CMF C19 H28 N4 O2

CM

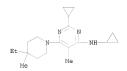
CRN 110-16-7

CMF C4 H4 O4

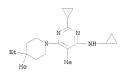
Double bond geometry as shown.



- RN 617717-41-6 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4-ethyl-4-methyl-1-piperidinyl)-5methyl- (CA INDEX NAME)



- RN 617717-42-7 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4-ethyl-4-methyl-1-piperidinyl)-5-methyl-, hydrochloride (1:1) (CA INDEX NAME)



- HCl
- RN 617717-43-8 CAPLUS
- CN 4-Piperidinol, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4pyrimidinyl]- (CA INDEX NAME)

RN 617717-44-9 CAPLUS

CN 4-Piperidino1, 1-[2-cyclopropy1-6-(cyclopropylamino)-5-methy1-4pyrimidiny1]-4-pheny1- (CA INDEX NAME)

RN 617717-45-0 CAPLUS

CN 4-Piperidinol, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-fluoro-4pyrimidinyl]-4-phenyl- (CA INDEX NAME)

RN 617717-46-1 CAPLUS

CN 4-Piperidinemethanol, 1-[2-cyclopropy1-6-(cyclopropylamino)-5-methy1-4pyrimidiny1]- (CA INDEX NAME)

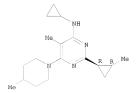
- RN 617717-53-0 CAPLUS
- CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-fluoro-6-(4-methyl-1-piperidinyl)-(CA INDEX NAME)

- RN 617717-55-2 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-6- (4-methyl-1-piperidinyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.

- RN 617717-58-5 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-methyl-1-piperidinyl)-, rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.



RN 617717-59-6 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropy1-5-methy1-2-[(1R,2R)-2-methylcyclopropy1]-6-(4-methyl-1-piperidiny1)-, rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

- RN 617717-60-9 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-methyl-1-piperidinyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.

- RN 617717-61-0 CAPLUS
- CN 4-Pyrimidinamine, N-cyclopropy1-2-[(1R,2R)-2-methylcyclopropy1]-6-(4-methyl-1-piperidinyl)-, hydrochloride (1:1), rel- (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 617717-62-1 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-methyl-1-piperidinyl)-, rel-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 617717-60-9

CMF C17 H26 N4

Relative stereochemistry.

CM 2

CRN 110-16-7

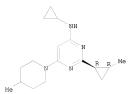
CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-63-2 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-methyl-1-piperidinyl)-, rel-(+)- (CA INDEX NAME)

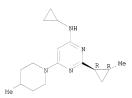
Rotation (+). Absolute stereochemistry unknown.



RN 617717-64-3 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropy1-2-[(1R,2R)-2-methylcyclopropy1]-6-(4-methyl-1-piperidinyl)-, rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



RN 617717-66-5 CAPLUS

CN 4-Piperidinone, 1-[2-cyclopropy1-6-(cyclopropylamino)-5-methy1-4pyrimidiny1]-, hydrate (1:1) (CA INDEX NAME)

● H₂O

RN 617717-67-6 CAPLUS CN 4,6-Pyrimidinediami:

4,6-Pyrimidinediamine, N6,2-dicyclopropyl-N4,5-dimethyl-N4-[2-(2-thienyl)ethyl]- (CA INDEX NAME)

RN 617717-69-8 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropy1-5-methy1-N'-[2-(2-thieny1)ethy1]-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-68-7

CMF C17 H22 N4 S

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

HO₂C Z

CN

RN 617717-71-2 CAPLUS

4,6-Pyrimidinediamine, N',2-dicyclopropyl-N-(2-furanylmethyl)-N,5-dimethyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-70-1 CMF C17 H22 N4 O

N NH Me N- Me CH2

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

HO2C Z

RN 617717-73-4 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-5-methyl-N'-(2-thienylmethyl)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-72-3 CMF C16 H20 N4 S

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-76-7 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(3,6-dihydro-1(2H)-pyridinyl)-2-[(1R,2R)-2-methylcyclopropyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 617717-77-8 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-6-(3,6-dihydro-1(2H)-pyridinyl)-2-[(1R,2R)-2-methylcyclopropyl]-, hydrochloride (1:1), rel- (CA INDEX NAME)

Relative stereochemistry.

HC1

RN 617717-81-4 CAPLUS

4,6-Pyrimidinediamine, N,2-dicyclopropy1-5-methyl-N'-(4-pyridinylmethyl)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

CN

CRN 617717-80-3 CMF C17 H21 N5

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-83-6 CAPLUS

CN 4,6-Pyrimidinediamine, N-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-N'-(4-pyridinylmethyl)-, rel-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-82-5 CMF C17 H21 N5

Relative stereochemistry.

CM

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-87-0 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-fluoro-6-(4-thiomorpholinyl)- (CA INDEX NAME)

RN 617717-88-1 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(4-thiomorpholinyl)- (CA INDEX NAME)

RN 617717-89-2 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropy1-5-methoxy-6-(4-thiomorpholiny1)- (CA INDEX NAME)

RN 617717-91-6 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-5-methyl-2-(1-methylethyl)-6-(4-thiomorpholinyl)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM

CRN 617717-90-5 CMF C15 H24 N4 S

CM :

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-92-7 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-thiomorpholinyl)-, hydrochloride (1:1), rel-(+)- (CA INDEX NAME)

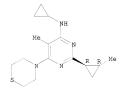
Rotation (+). Absolute stereochemistry unknown.

● HCl

RN 617717-93-8 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-5-methyl-2-[(1R,2R)-2-methylcyclopropyl]-6- (4-thiomorpholinyl)-, hydrochloride (1:1), rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



● HC1

RN 617717-94-9 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropy1-2-[(1R,2R)-2-methylcyclopropy1]-6-(4-

thiomorpholinyl)-, hydrochloride (1:1), rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.

HC1

RN 617717-95-0 CAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-6-(4-thiomorpholinyl)-, hydrochloride (1:1), rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.

HC1

RN 617717-97-2 CAPLUS

4,6-Pyrimidinediamine, N,2-dicyclopropyl-5-methyl-N'-(phenylmethyl)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CN

CRN 617717-96-1 CMF C18 H22 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617717-99-4 CAPLUS
CN 4,6-Pyrimidinediamine, N',2-dicyclopropyl-N,5-dimethyl-N-(phenylmethyl)-,
(22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617717-98-3 CMF C19 H24 N4

$$\begin{array}{c|c} N & NH \\ \hline N & Me \\ \hline Ph-CH_2-N \\ \end{array}$$

Me CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-00-0 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-N6-(phenylmethyl)-, hydrobromide (1:1), rel- (CA INDEX NAME)

Relative stereochemistry.

• HBr

RN 617718-02-2 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-5-methyl-N'-[[4-(methylthio)phenyl]methyl]-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-01-1

CMF C19 H24 N4 S

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-06-6 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-N'-[(2-fluorophenyl)methyl]-5-methyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-05-5

CMF C18 H21 F N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-07-7 CAPLUS

CN 4,6-Pyrimidinediamine, N6-cyclopropyl-N4-methyl-2-[(1R,2R)-2-methylcyclopropyl]-N4-[(2-nitrophenyl)methyl]-, hydrochloride (1:1), rel-(CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 617718-09-9 CAPLUS
CN 4,6-Pyrimidinediamine, N-[[3,5-bis(trifluoromethyl)phenyl]methyl]-N',2dicyclopropyl-5-methyl-, (2Z)-2-butenedicate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 617718-08-8 CMF C20 H20 F6 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-11-3 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-N'-[(3,5-difluorophenyl)methyl]-5-methyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-10-2

CMF C18 H20 F2 N4

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-13-5 CAPLUS

CN 4,6-Pyrimidinediamine, N-cycloheptyl-N',2-dicyclopropyl-5-methyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-12-4

CMF C18 H28 N4

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-15-7 CAPLUS

CN 4,6-Pyrimidinediamine, N-cycloheptyl-N'-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-14-6 CMF C18 H28 N4

Relative stereochemistry.

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-17-9 CAPLUS

CN 4,6-Pyrimidinediamine, N-cyclohexyl-N',2-dicyclopropyl-N,5-dimethyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-16-8

CMF C18 H28 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-19-1 CAPLUS CN 4,6-Pyrimidinediamin

4,6-Pyrimidinediamine, 5-chloro-N-cyclohexyl-N',2-dicyclopropyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 617718-18-0 CMF C16 H23 C1 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-21-5 CAPLUS

CN 4,6-Pyrimidinediamine, N-cyclohexyl-N',2-dicyclopropyl-5-methyl-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 617718-20-4

CMF C17 H26 N4

CM

CRN 110-16-7

CMF C4 H4 O4

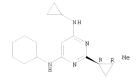
Double bond geometry as shown.

RN 617718-23-7 CAPLUS (14,6-Pyrimidinaediamine, N-cyclohexyl-N'-cyclopropyl-2-[(IR,2R)-2-methylcyclopropyl]-, rel-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-22-6 CMF C17 H26 N4

Relative stereochemistry.



CM 2

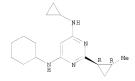
CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-24-8 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclohexyl-N6-cyclopropyl-2-[(1R,2R)-2-methylcyclopropyl]-, rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.



RN 617718-26-0 CAPLUS

CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-5-methyl-N6-(4-methylcyclohexyl)-(CA INDEX NAME)

RN 617718-28-2 CAPLUS

CN 2H-Azepin-2-one, 1-[2-cyclopropyl-6-(cyclopropylamino)-5-methyl-4pyrimidinyl]hexahydro- (CA INDEX NAME)

RN 617718-30-6 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-6-(3,4-dihydro-2(1H)-isoquinolinyl)-5methyl-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM :

CRN 617718-29-3

CMF C20 H24 N4

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-33-9 CAPLUS

CN 4,6-Pyrimidinediamine, N,2-dicyclopropyl-N'-(2,2-diphenylethyl)-5-methyl-, (22)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-32-8

CMF C25 H28 N4

Ph2CH-CH2-NH

CM

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-35-1 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropy1-5-methy1-6-(1,6,6-trimethy1-3-azabicyclo[3.2.1]oct-3-y1)-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 617718-34-0

CMF C21 H32 N4

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-37-3 CAPLUS

CN 4-Pyrimidinamine, N,2-dicyclopropyl-5-methyl-6-[(4aR,8aS)-octahydro-2(1H)-isoquinolinyl]-, rel-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-36-2 CMF C20 H30 N4

Relative stereochemistry.

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-38-4 CAPLUS

CN 4-Pyrimidinanine, 6-(8-azaspiro[4.5]dec-8-y1)-N, 2-dicyclopropy1-5-methy1-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 617718-57-7 CAPLUS

CN 4-Pyrimidinamine, 2-cyclopropyl-6-(hexahydro-lH-azepin-1-yl)-5-methyl-N-[(1R,2R)-2-methylcyclopropyl]-, rel-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-56-6 CMF C18 H28 N4

Relative stereochemistry.

CM 2

CRN 110-17-8 CMF C4 H4 O4 Double bond geometry as shown.

RN 617718-59-9 CAPLUS

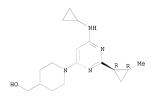
CN 4-Piperidinemethanol, 1-[6-(cyclopropylamino)-2-[(1R,2R)-2methylcyclopropy]1-4-pyrimidinyl]-, rel-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM I

CRN 617718-58-8

CMF C17 H26 N4 O

Relative stereochemistry.



CM :

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.



CN

RN 617718-60-2 CAPLUS

4-Pyrimidinamine, 2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-N- [(1R,2R)-2-methylcyclopropyl]-, rel-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 617718-56-6

CMF C18 H28 N4

Relative stereochemistry.

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-67-9 CAPLUS

CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-N6-[(4-fluorophenyl)methyl]-5-methyl- (CA INDEX NAME)

RN 617718-68-0 CAPLUS

CN 4,6-Pyrimidinediamine, N4,2-dicyclopropyl-5-methyl-N6-[(2methylphenyl)methyl]- (CA INDEX NAME)

RN 617718-71-5 CAPLUS

CN 4-Pyrimidinamine, 2-cyclopropyl-6-(hexahydro-1H-azepin-1-y1)-5-methyl-N[(1R, 2S)-2-phenylcyclopropyl]-, rel-, (2E)-2-butenedioate (1:1) (9CI) (CA
INDEX NAME)

CM 1

CRN 617718-70-4 CMF C23 H30 N4

Relative stereochemistry.

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-72-6 CAPLUS

CN 1H-Azepine, 1-[6-(3-bromo-1-azetidiny1)-2-cyclopropy1-5-methy1-4pyrimidiny1]hexahydro- (CA INDEX NAME)

RN 617718-73-7 CAPLUS

CN 3-Azetidinecarbonitrile, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4-pyrimidinyl]- (CA INDEX NAME)

- RN 617718-81-7 CAPLUS
- CN 1H-Azepine, 1-[2-cyclopropy1-6-(3,3-dimethyl-1-azetidinyl)-5-methyl-4pyrimidinyl]hexahydro- (CA INDEX NAME)

- RN 617718-84-0 CAPLUS
- CN 3-Azetidinol, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4pyrimidinyl]-, 3-methanesulfonate (CA INDEX NAME)

- RN 617718-88-4 CAPLUS
- CN 3-Azetidinone, 1-[2-cyclopropyl-6-(hexahydro-1H-azepin-1-yl)-5-methyl-4-pyrimidinyl]-, hydrate (1:1) (CA INDEX NAME)

● H2O

RN 617718-90-8 CAPLUS

CN 1H-Azepine, 1-[2-cyclopropy1-6-(3-fluoro-1-azetidiny1)-4pyrimidiny1]hexahydro-, (2E)-2-butenedioate (2:3) (CA INDEX NAME)

CM

CRN 617718-89-5 CMF C16 H23 F N4

CM

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 617718-92-0 CAPLUS

CN 1H-Azepine, 1-[2-cyclopropyl-6-(3-methoxy-1-azetidinyl)-5-methyl-4pyrimidinyl]hexahydro-, (2Z)-2-butenedioate (1:1) (CA INDEX NAME)

CM :

CRN 617718-91-9

CMF C18 H28 N4 O

CM 2

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2003:775798 CAPLUS
- DN 140:192821
- TI N,N'-dicyclopentyl-2-methylsulfanyl-5-nitro-pyrimidine-4,6-diamine (GS39783) and structurally related compounds: Novel allosteric enhancers of y-aminobutyric acidB receptor function
- AU Urwyler, Stephan; Pozza, Mario F.; Lingenhoehl, Kurt; Mosbacher, Johannes; Lampert, Christina; Froestl, Wolfgang; Koller, Manuel; Kaupmann, Klemens. CS Novartis Institutes for BioMedical Research, Novartis Pharma AG, Basel.
- Switz.
 SO Journal of Pharmacology and Experimental Therapeutics (2003), 307(1),
- 322-330 CODEN: JPETAB; ISSN: 0022-3565
- PB American Society for Pharmacology and Experimental Therapeutics
- DT Journal
- LA English
 AB N,N'-Dicyclopentyl-2-methylsulfanyl-5-nitro-pyrimidine-4,6-diamine
 (GS39783) and structurally related compds. are described as novel
 allosteric enhancers of GABAB receptor function. They potentiate
 GABA-stimulated quancies 5'-0-(3-3351thio)-triphosphate
 - GABA-stimulated quanosine 5'-0-(3-[35S]thio)-triphosphate ([355]GTPvS) binding to membranes from a GABAB(1b/2)-expressing Chinese hamster ovary cell line at low micromolar concns., but do not stimulate [35S]GTP γ S binding by themselves. Similar effects of GS39783 are seen on native GABAB receptors in rat brain membranes. Concentration-response curves with GABA in the presence of different fixed concns. of GS39783 reveal an increase of both the potency and maximal efficacy of GABA at the GABAB(1b/2) heterodimer. In radioligand binding expts., GS39783 reduces the kinetic rate consts. of the association and dissociation of [3H]3-aminopropylphosphinic acid, resulting in a net increase in affinity for the agonist radioligand. In equilibrium binding expts. (displacement of the antagonist ligand [3H]CGP62349), GS39783 increases agonist affinities. Agonist displacement curves are biphasic, probably reflecting the G protein-coupled and uncoupled states of the receptor. The proportion of the high-affinity component is increased by GS39783, suggesting that the G protein coupling of the receptor is also promoted by the pos. modulator. We also show that GS39783 has modulatory effects in cellular assays such as GABAB receptor-mediated activation of inwardly rectifying potassium channels in Xenopus occytes and Ca2+ signaling in human embryonic kidney 293 cells. In a more physiol, context, GS39783 is shown to suppress paired pulse inhibition in rat hippocampal slices. This effect is reversed by the competitive GABAB receptor antagonist CGP55845A and is produced most likely by enhancing the effect of synaptically
 - released GABA at presynaptic GABAB receptors. IT 53039-20-6, CGA 38493
 - RL: PAC (Pharmacological activity); BIOL (Biological study) (GS39783 and structurally related compds. as novel allosteric enhancers of GABABB receptor function)
- RN 53039-20-6 CAPLUS
- CN 4,6-Pyrimidinediamine, N,N'-dicyclopentyl-2-methyl-5-nitro- (9CI) (CA INDEX NAME)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
1.4
    1997;407610 CAPLUS
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AN

127:121691 DM

OREF 127:23473a,23476a

Synthesis of 4,6-disubstituted and 4,5,6-trisubstituted

2-phenylpyrimidines and their affinity towards Al adenosine receptors

AU Biagi, Giuliana; Giorgi, Irene; Livi, Oreste; Scartoni, Valerio; Lucacchini, Antonio

Dip. Scienze Farmaceutiche, Univ. Pisa, Pisa, 56126, Italy

SO Farmaco (1997), 52(1), 61-65 CODEN: FRMCE8; ISSN: 0014-827X

PB Societa Chimica Italiana

DT Journal

T.A English

AB The preparation and assay of the title compds., e.g., I (R = cyclohexyl, pentyl), are reported. The results support our hypothesis about the possibility that mols. characterized by great flexibility, such as 2-phenyl-4,5,6-triaminopyrimidines, can better interact with the receptor sites than rigid mols. such as 2,6,9-trisubstituted 8-azaadenines. The relatively low activity shown by pyrimidine derivs, demonstrated the importance of the bicyclic aromatic system in 8-azaadenines and adenines for a favorable interaction with the Al adenosine receptors.

192631-72-4P 192631-73-5P 192631-86-0P

192631-87-1P 192631-90-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of 4,6-disubstituted and 4,5,6-trisubstituted 2-phenylpyrimidines and their Al adenosine receptor affinity)

DΝ 192631-72-4 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclopentyl-2-phenyl-N6-(phenylmethyl)- (CA INDEX NAME)



RN 192631-73-5 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclohexyl-2-phenyl-N6-(phenylmethyl)- (CA INDEX NAME)

RN 192631-86-0 CAPLUS

CN 4,5,6-Pyrimidinetriamine, N4-cyclopenty1-2-pheny1-N6-(phenylmethy1)-,

monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 192631-87-1 CAPLUS

CN 4,5,6-Pyrimidinetriamine, N4-cyclohexyl-2-phenyl-N6-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 192631-90-6 CAPLUS

CN 4,5,6-Pyrimidinetriamine, N4,N6-dicyclohexyl-2-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

IT 192631-78-0P 192631-79-1P 192631-82-6P 192631-83-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 4,6-disubstituted and 4,5,6-trisubstituted 2-phenylpyrimidines and their Al adenosine receptor affinity)

RN 192631-78-0 CAPLUS

CN 4,6-Pyrimidinediamine, N4-cyclopentyl-5-nitro-2-phenyl-N6-(phenylmethyl)-(CA INDEX NAME)

RN 192631-79-1 CAPLUS

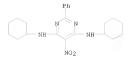
CN 4,6-Pyrimidinediamine, N4-cyclohexyl-5-nitro-2-phenyl-N6-(phenylmethyl)-(CA INDEX NAME)

RN 192631-82-6 CAPLUS

CN 4,6-Pyrimidinediamine, N4,N6-dicyclopentyl-5-nitro-2-phenyl- (CA INDEX NAME)

RN 192631-83-7 CAPLUS

CN 4,6-Pyrimidinediamine, N4,N6-dicyclohexyl-5-nitro-2-phenyl- (CA INDEX NAME)



- L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1978:615426 CAPLUS

DM 89:215426

OREF 89:33481a,33484a

TI Nitropyrimidine derivatives

IN Fischer, Hanspeter

PA Ciba-Geigv A.-G., Switz.

SO Pat. Specif. (Aust.), 41 pp.

CODEN: ALXXAP

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE --------------AU 492126 19780303 AU 1974-68921 19740514 PТ B 19740514

PRAI AU 1974-68921

Eighty nitropyrimidines I (R1 = C1-6 alkyl, C2-5 alkenyl, C3-6 un- or Meor Et-substituted cycloalkyl, alkoxy-, cyano-, or hydroxyalkyl; R2, R3 = H, C1-4 alkyl; R4 alkyl, C3-4 alkenyl, C3-6 un- or Me- or Et-substituted cycloalkyl; R5 = H, alkyl, haloalkyl, alkoxy, alkyl- or dialkylamino) and their acid addition salts, useful as herbicides and plant growth inhibitors (extensive data tabulated), were prepared by 3 methods. Thus, EtNH2(g) was passed into dichloropyrimidine II (R5 = MeS) in alc. at .apprx.35° and the mixture stirred 2 h at room temperature to give I (R1 = R3 = Et, R2 =

R4 = H, R5 = MeS), which was refluxed 20 h with stirring with NaOMe-MeOH to give I (R1 = R3 = Et, R2 = R4 = H, R5 = MeO).

53039-12-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and herbicidal activity of)

RN 53039-12-6 CAPLUS

CN 4,6-Pyrimidinediamine, N,N'-dicyclopropy1-2-methy1-5-nitro- (9CI) (CA INDEX NAME)

- 53039-20-6P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
- RN 53039-20-6 CAPLUS
- CN 4.6-Pvrimidinediamine, N.N'-dicvclopentvl-2-methvl-5-nitro- (9CI) (CA INDEX NAME)

- L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1976:429570 CAPLUS

DN 85:29570

OREF 85:4793a,4796a

- TI 5-Nitropyrimidines for inhibiting plant growth
- PA Ciba-Geigy A.-G., Switz.
- SO Austrian, 20 pp.
- CODEN: AUXXAK
- DT Patent LA German
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	AT 327605	В	19760210	AT 1974-3729	19740506
	AT 7403729	A	19750415		
PRA1	AT 1974-3729	A	19740506		

- PRAI AT 1974-3729 A 19740506

 AB The title compds. I(R1 = C1-6 alkyl, C2-5 alkenyl, cycloalkyl, alkoxyalkyl, hydroxyalkyl, or cyanoalkyl; R2 and R3 = H or C1
 - alkoxyalkyl, hydroxyalkyl, or cyanoalkyl; R2 and R3 = H or C1-4 alkyl; R4 = lower alkyl or cycloalkyl; R5 = H, lower alkoxy, alkyl, haloalkyl, alkylamino, dialkylamino, or halogen) are herbicides and plant-growth regulators. Thus 4 kg I(R1 = R4 = Et; R2 = R3 = H; R5 = iso-Pr) [53038-76-9]/ha controlled Cyperus esculentus without damaging alfalfa. Several syntheses are described.
 - IT 53039-12-6P 53039-20-6P RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)
- RN 53039-12-6 CAPLUS
- CN 4,6-Pyrimidinediamine, N,N'-dicyclopropyl-2-methyl-5-nitro- (9CI) (CA INDEX NAME)

- RN 53039-20-6 CAPLUS
- CN 4,6-Pyrimidinediamine, N,N'-dicyclopentyl-2-methyl-5-nitro- (9CI) (CA INDEX NAME)

- L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1975:27230 CAPLUS
- 82:27230 DN
- OREF 82:4329a,4332a
- Nitropyrimidine plant growth regulators [herbicides]
- IN Fischer, Hanspeter
- PA Ciba-Geigv A.-G.
- SO Ger. Offen., 44 pp. CODEN: GWXXBX
- DT Patent
- LA German
- FAN CNT 1

PAN.CNI		KIND	DATE	APE	PLICATION NO.	DATE
PI DE	2356644	A1	19740522	DE	1973-2356644	19731113
CH	574206	A5	19760415	CH	1972-16728	19721116
US	3948914	A	19760406	US	1973-415209	19731112
CA	1011960	A1	19770614	CA	1973-185680	19731113
BE	807321	A1	19740514	BE	1973-137749	19731114
FF	2206909	A1	19740614	FR	1973-40409	19731114
NL	7315695	A	19740520	NL	1973-15695	19731115
ZA	7308750	A	19740731	ZA	1973-8750	19731115
JF	49081538	A	19740806	JP	1973-128692	19731115
II	1001780	В	19760430	ΙT	1973-31377	19731115
GE	1448851	A	19760908	GB	1973-53090	19731115
GE	1448852	A	19760908	GB	1975-8912	19731115
US	4055411	A	19771025	US	1975-641792	19751218
PRAI CH	1972-16728	A	19721116			
US	1973-415209	A3	19731112			

- AB 4,6-Dialkylamino-5-nitropyrimidines I (R,R1,R2 and R3 = H, alkyl or alkenyl; R4 = alkyl, CF3, C1 or alkylamino) were especially effective as herbicides. For example, 4,6-bis(ethylamino)-5-nitro-2isopropylpyrimidine (I, R = R2 = Et, R1 = R3 = H, R4 = iso-Pr)

 - [53038-76-9] 4kg/ha, controlled Cyperus esculentus, Digitaria sanquinalis, Amaranthus, Setaria italica, and Echinochloa crus-galli, with little or no phytotoxicity to culture plants.
- 53039-12-6 53039-20-6
 - RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses) (herbicide)
- RN 53039-12-6 CAPLUS
- CN 4,6-Pyrimidinediamine, N,N'-dicyclopropy1-2-methy1-5-nitro- (9CI) (CA INDEX NAME)



- RN 53039-20-6 CAPLUS
- CN 4,6-Pyrimidinediamine, N,N'-dicyclopentyl-2-methyl-5-nitro- (9CI) (CA INDEX NAME)

=> log y COST IN U.S. DOLLARS FULL ESTIMATED COST	SINCE FILE ENTRY 71.81	TOTAL SESSION 250.84
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-10.40	-10.40

STN INTERNATIONAL LOGOFF AT 15:33:21 ON 01 AUG 2008